

acrylamides or -methacrylamides and alkylaryl-acrylamides or -methacrylamides.

--46. (new) The medium according to Claim 32, wherein the polymeric segment(s) soluble at the temperatures T1 and T2 consist of at least one polymer chosen from polyethers, polyesters, soluble random copolymers and homopolymers of the polyoxyalkylene, polysaccharides, polyvinyl alcohol, polyvinylpyrrolidone, polyurethanes, polyamides, polysulphonamides, polysulphoxides, polystyrenesulphonate, substituted or unsubstituted polyacrylamides or polymethacrylamides which are soluble in the said electrolyte.

--47. (new) The medium according to Claim 32, wherein the copolymer is chosen from:

- copolymers of the comb copolymer type whose skeleton is of the type including acrylamide, acrylic acid, acryloylaminoethanol or dimethacrylamide and on which there are grafted side segments of the poly(N-alkyl or N,N-dialkyl)acrylamide type, or side segments of the random or block, polyoxyethylene/oxypropylene copolymer or polyoxypropylene type, or side segments of the polyether type

- copolymers of the block copolymer type exhibiting along their skeleton an alternation of segments of the polyoxyethylene type and of segments of the polyoxypropylene type, or an alternation of segments of the polyoxyethylene type and of segments of the polyoxybutylene type or an alternation of segments of polyethylene and of segments of the polyether type which are more hydrophobic than polyoxyethylene.

--48. (new) The medium according to Claim 32, wherein the copolymer is chosen from

polyacrylamide/poly(N-isopropylacrylamide) (PAM-NIPAM);
polyvinylalcohol/poly(N-isopropylacrylamide) (PVA-NIPAM),
polyoxyethylene/polyoxypropylene, poly-
acrylamide/oxyethylene-oxypropylene copolymer, poly-
acrylamide/polyoxypropylene, polyacrylic acid/
polyoxypropylene, polyacrylic acid/oxyethylene-oxypropylene
copolymer, polyacrylic acid/poly(N-isopropylacrylamide) and
polydimethylacrylamide/poly(N-isopropylacrylamide) (PDMAM-
NIPAM).

--49. (new) The medium according to Claim 32, which transits from a viscosity V1 of between 50 and 1 000 mPa.m⁻¹.s⁻¹ (SI unit) at a temperature T1 of between 15 and 30°C to a viscosity V2 which is greater than V1 by a factor

of between 2 and 50 at a temperature T2 of the order of 40°C or higher and comprises between 5 g/100 ml and 20 g/100 ml of copolymers possessing

- an average molecular mass of between 30 000 and 2 000 000 or a number of atoms along the main skeleton of between 1 000 and 60 000,
- a fraction by mass of segments with LCST of between 2% and 20%, and
- an average molecular mass of the segments with LCST of between 2 000 and 20 000 or an average number of atoms along a segment with LCST of between 35 and 350.

--50. (new) The medium according to Claim 32, which transits from a viscosity V1 of between 100 and 10 000 mPa.m⁻¹.s⁻¹ at a temperature T1 of between 15 and 30°C to a viscosity V2 which is greater than V1 by a factor of between 2 and 100 at a temperature T2 of the order of 40°C or higher and comprises between 1 g/100 ml and 8 g/100 ml of copolymers possessing